CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 95-189
UPDATED WASTE DISCHARGE REQUIREMENTS

ALAMEDA CITY DOOLITTLE LANDFILL,
CITY OF ALAMEDA, ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board), finds that:

DISCHARGER & SITE IDENTIFICATION

1. Alameda City Doolittle Landfill (Doolittle LF) is owned by The City of Alameda, the site's legal owner and maintained by Alameda City Disposal Company, hereinafter collectively referred to as the discharger. The project site as shown on Attachment A, which is incorporated herein and made a part of this Order, is located adjacent to San Leandro Channel north of Doolittle Drive, as shown in Attachments A and B.

2. The 1993 Solid Waste Assessment Report (SWAT) evaluation for the Doolittle LF indicated traces of low level organic constituents in leachate and groundwater wells within the landfill. No waste has been disposed of at the site since February 28, 1981. The landfill submitted a Closure Plan titled "Technical Information Site Closure Plan Alameda Landfill, Alameda, California" dated February 28, 1979. The Regional Board approved the plan with the condition that it will be revised if the leachate barrier is found ineffective. The landfill is currently classified as a closed, inactive Class III landfill. The facility was closed in 1985 pursuant to the approved Closure Plan.

PURPOSE OF UPDATE ORDER

3. The primary objectives of this order are to revise the groundwater, surface water and leachate monitoring programs, to evaluate the impact to water quality, and to bring the site into compliance with the appropriate regulations of Articles 5 and 8, Title 23, Division 3, Chapter 15 of the California Code of Regulations.

SITE DESCRIPTION

4. The landfill is a closed Class III solid waste disposal site located in the City of Alameda at the northeastern extent of Bay Farm Island adjacent to San Leandro Bay. The landfill is approximately 40 acres and is bounded on the north by San Leandro Bay, on the south and

west by Doolittle Drive, and on the east by Doolittle Pond. Land use within 1,000 feet of the site is light industrial, residential and recreational. The site is bordered on the west by residential property, on the south by the Alameda Municipal Golf Course, on the east by light industry and on the north by the San Leandro Channel.

SITE HISTORY

5. The Alameda City Doolittle Landfill began operation in 1953 and was closed in 1985. The landfill accepted mainly household waste. No wastes were received after February 28, 1981.

6. The Board on November 16, 1976, adopted Waste Discharge Requirements (WDRs) Order No. 76-126. On October 17, 1978 and April 17, 1979 the Board adopted Cease and Desist Order Nos. 78-86 and 79-47 that required the discharger to construct leachate control facilities. On March 18, 1981 Order No. 76-126 was amended by the adoption of Order No. 81-16 establishing Closure Requirements for the Doolittle LF. This Order rescinds Order No. 81-16 in accordance with the California Code of Regulations, Title 23, Chapter 15, Article 5.

7 A landfill gas recovery and flaring system is in place at the facility.

WASTES AND THEIR CLASSIFICATION

8. The disposal operation was restricted to household wastes, grass cuttings, tree trimmings,demolition wastes and solid industrial debris.

GEOLOGY

9. The landfill area is on the northern margin of Bay Farm Island in the City of Alameda. Until the 1950s, the site was tidal marshland in the San Leandro Bay estuary. Artifical fill has been placed in the marshland around the Island to the expand its size. Beneath the fill, the naturally occurring sediments comprise up to 50 feet of young bay mud (deposited up to 8,000 years ago), 50 to 60 feet of predominantly marine or estuarine sands and silts of the San Antonio Formation (11,000 to 90,000 years ago), 40 to 50 feet of older bay mud (Yerba Buena Mud, 115,000 to 125,000 years ago), and a thick (900+ feet) section of predominantly continental marine sediments of the Alameda Formation (500,000 to 1,000,000 years ago) above Franciscan Formation bedrock. The thick stratigraphic section in this location is believed to be related to a structural basin feature formed by crustal extension between two sections of the Hayward fault.

The young bay mud underlying the landfill site is composed of fine grained silts and clays with occasional lenses of fine grained sands. The bay mud material exhibits low hydraulic conductivity values of 10^{-5} to 10^{-7} cm/sec.

SURFACE WATER AND GROUNDWATER

10. SURFACE WATER - The major surface water feature at the site is the San Leandro Bay and Channel which forms the northern boundary of the landfill. San Leandro Bay is an estuary formed where San Leandro Creek, a perennial stream, flows into San Francisco Bay from the east between Bay Farm Island and Alameda Island. The estuary is 70 to 500 feet wide and 10 to 20 feet deep. It is tidally influenced due to its immediate proximity to San Francisco Bay. Narrow tidal channels that cut through the marsh and connect to the bay have been filled by the development and expansion of Bay Farm Island.

11. GROUNDWATER - Groundwater flow beneath the site is to south away from San Leandro Channel. Groundwater flow appears to be influenced by topography and the drainage reservoir south of the landfill in the golf course. This reservoir is at the lowest elevation in the area surrounding the landfill. Groundwater, regardless of season or tidal influence, flows southward toward this topographic low point under a hydraulic gradient of 0.003 to 0.005 foot/foot. The regional hydrogeologic conditions suggest that groundwater flow is probably toward San Leandro Channel.

12. GROUNDWATER DEGRADATION - Areas at greater risk for potential groundwater degradation are the bay mud and underlying sand lenses.

13. BENEFICIAL USES - Beneficial uses of the useable groundwater and the surrounding surface water of the San Leandro Channel, San Leandro Bay and the San Francisco Bay are:

    a. Fish and shellfish habitat;

    b. Navigation;

    c. Water contact recreation;

    d. Non-contact water recreation;

    e. Wildlife habitat;

    f. Estuarine habitat;

    g. Preservation of rare and endangered species;

14. The present and potential beneficial uses of the deeper groundwater are as follows:

    a. Domestic and municipal water supply;

b. Industrial process supply.

DESIGN OF WASTE MANAGEMENT UNIT

15. Doolittle LF is underlain by the Bay mud and sand lenses. The landfill was developed in 1953 when a perimeter levee was constructed in phases along the present bayward extent of the landfill. Disposal cells were excavated, dewatered and backfilled with municipal refuse. The refuse fill reaches a maximum depth of 65 feet near the center of the landfill. The perimeter levee was originally constructed of soil, rock and construction debris placed on top of Bay mud to an approximate height of 25 feet above the original tidal marsh. In 1979, the perimeter levee was improved to minimize seepage into San Leandro Bay. A perimeter leachate barrier was excavated along the perimeter levee and backfilled with sediments dredged from the bay.

16. The 4-foot thick final cover system placed over the landfill in 1985 consists of three discrete layers: an approximately 2-foot thick foundation soil layer immediately overlying the refuse fill, a minimum 1-foot thick of low permeability clay (permeability less than $1x10^{-6}$ cm/sec) covering the foundation soil, and 1-foot thick layer of topsoil covering the clay. The cover system has a minimum design slope of 3 percent and is covered by vegetation. Final development of the landfill includes a landfill gas collection and recovery system and a perimeter asphalt pathway.

17. The Regional Board adopted a revised Water Quality Plan for the San Francisco Bay Basin in December 17, 1986 and this Order implements the water quality objectives stated in that plan.

MONITORING PROGRAM

18. The discharger is required to perform semi-annual monitoring as stated in the Discharge Monitoring Program, Parts A & B for the existing monitoring network which consists of 5 groundwater monitoring wells (MW1,MW2,MW3,MW4&MW5) and 7 leachate wells (G1A,G2A,G3A,G4A,G6A,GR1A&GR3A).

19. Surface water monitoring is conducted as part of current General Industrial Stormwater Discharge Permit (NPDES) and approved stormwater monitoring plan.

20. Unsaturated zone monitoring program is conducted where technically feasible, to satisfy the requirements of Article 5, Section 2550.7.

21. The discharger is required to analyze for the monitoring parameters as presented in Table A of the Discharge Monitoring Program for the Doolittle LF.

CALIFORNIA ENVIRONMENTAL QUALITY ACT.

22. This site is exempted from the provision of the California Environmental Quality Act (CEQA) pursuant to Section 15308, Title 14 of the California Code of Regulation. However, any subsequent development of the closed landfill may not be exempted from CEQA.

23. The Board notified the discharger and interested agencies and persons of its intent to issue waste discharge requirements for the discharger and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

24. The Board, in public meeting heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that The City of Alameda, their agents, successors and assigns shall meet the applicable provisions contained in Title 23, Division 3, Chapter 15 of the California Code of Regulations and Division 7 of the California Water Code and shall comply with the following:

A. PROHIBITIONS

1. Waste shall not be in contact with ponded water from any source whatsoever.

2. Waste shall not be deposited or stored at this site.

3. Leachate from waste and ponded water containing leachate or in contact with solid wastes shall not be discharged to waters of the State or of the United States.

4. The discharger, or any future owner or operator of the site, shall not cause the following conditions to exist in waters of the State at any place outside the waste management facility:

   a. Surface Waters

      1. Floating, suspended, or deposited macroscopic particulate matter or foam.

      2. Bottom deposits or aquatic growths.

      3. Alteration of temperature, turbidity, or apparent color beyond natural background levels.

      4. Visible, floating, suspended or deposited oil or other products of petroleum origin.

5. Toxic or other deleterious substances to be present in concentrations or quantities which may cause deleterious effects on aquatic biota, wildlife or waterfowl, or which render any of this unfit for human consumption either at levels created in the receiving waters or as a result of biological concentrations.

b. Groundwater

The groundwater shall not be impacted as a result of the solid waste degradation.

B. SPECIFICATIONS

1. All reports pursuant to this order shall be prepared under the supervision of a registered civil engineer, California registered geologist or certified engineering geologist.

2. The site shall be protected from any washout or erosion of wastes or covering material and from inundation which could occur as a result of a 100 year 24 hour precipitation event, or as the result of flooding with a return frequency of 100 years.

3. Surface drainage from tributary areas and internal site drainage from surface or subsurface sources shall not contact or percolate through wastes during the life of the site.

4. The existing leachate control facility shall be maintained and remain operational as long as leachate is present and poses a threat to water quality.

5. The discharger shall assure that the foundation of the site, the solid waste fill, and the structures which control leachate, surface drainage, erosion and gas are constructed and maintained to withstand conditions generated during the maximum probable earthquake.

6. The facility's Leachate Collection and Removal System (LCRS) must be capable of creating an inward leachate gradient which shall prevent leachate migration offsite. The LCRS shall be inspected monthly or more frequently as necesary and any accumulated fluid shall be removed.

7. The exterior surfaces (cap) shall be graded to promote lateral runoff of precipitation and to ensure that ponding does not occur.

8. The discharger shall analyze the samples from the existing groundwater wells (MW1,MW2,MW3,MW4&MW5) on a semi-annual basis for parameters listed in Table A of the Discharge Monitoring Program.

9. In the event of a release of a constituent of concern beyond the Point of Compliance, the site begins a Compliance Period (Sect. 2550.6(a)). During the Compliance Period, the discharger shall perform an Assessment Monitoring Program and a Corrective Action Program.

10. The discharger shall install any reasonable additional groundwater and leachate monitoring devices required to fulfill the terms of any Discharge Monitoring Program issued by the Executive officer.

11. Landfill gases shall be adequately vented, removed from the landfill, or otherwise controlled to minimize the danger of explosion, adverse health effects, nuisance conditions, or the impairment of beneficial uses of water due to migration through the vadose (unsaturated) zone.

12. The discharger shall maintain all devices or designed features, installed in accordance with this order such that they continue to operate as intended without interruption as provided for by the performance standards adopted by the California Integrated Waste Management Board.

13. The discharger shall provide a minimum of two surveyed permanent monuments near the landfill from which the location and elevation of wastes, containment structures, and monitoring facilities can be determined throughout the operation and post-closure maintenance period. These monuments shall be installed by a licensed land surveyor or registered civil engineer.

14. The Regional Board shall be notified immediately of any failure occurring in the waste management unit. Any failure which threatens the integrity of containment features or the landfill shall be promptly corrected after approval of the method and schedule by the Executive officer.

15. The discharger shall comply with all applicable provisions of Chapter 15 that are not specifically referred to in this Order.

16. The discharger shall maintain the facility so as to prevent a statistically significant increase in water quality parameters at points of compliance as provided in Section 2550.5.

C PROVISIONS

1. The discharger shall comply with all Prohibitions, Specifications and Provisions of this Order.

2. The discharger shall submit semi-annual monitoring reports by April 30 for the winter/spring reporting period and October 30 for the summer/fall reporting period of each year in accordance with the attached Updated Discharge Monitoring Program. Sample collection shall be between a six months interval. By April 30 of each year the discharger shall also submit an annual report to the Board covering the previous calendar year as described in Part A of the Updated Discharge Monitoring Program.
REPORT DUE DATE: SEMI-ANNUAL Reports -APRIL 30 AND OCTOBER 30 OF EACH YEAR
ANNUAL REPORTS - APRIL 30 OF EACH YEAR

3. The discharger shall submit gas monitoring results on a yearly basis.

4. The discharger shall submit a detailed Post Earthquake Inspection and Corrective Action Plan acceptable to the Executive officer to be implemented in the event of any earthquake generating ground shaking of Richter Magnitude 7 or greater at or within 30 miles of the landfill. The report shall describe the containment features, and groundwater monitoring and leachate control facilities potentially impacted by the static and seismic deformations of the landfill. The plan shall provide for reporting results of the post earthquake inspection to the Board within 72 hours of the occurrence of the earthquake. Immediately after an earthquake event causing damage to the landfill structures, the corrective action plan shall be implemented and this Board shall be notified of any damage. The report shall be due within three months of adoption of this Order.
REPORT DUE DATE: 3 MONTHS OF ADOPTION OF THIS ORDER

5. All reports pursuant to these Provisions shall be prepared under the supervision of a registered civil engineer or certified engineering geologist.

6. The discharger shall submit a Contingency Plan to be instituted in the event of a surface leak or spill from the leachate facilities. The discharger shall give immediate notification to the San Francisco Bay Regional Water Quality Control Board, the Local Enforcement Agency (LEA), and the California Department of Toxic Substances Control.
REPORT DUE DATE: 3 MONTHS OF ADOPTION OF THIS ORDER

7. The discharger shall file with the Regional Board Discharge Monitoring Reports

performed according to any Discharge Monitoring Program issued by the Executive Officer.

8. The discharger shall immediately notify the Board of any flooding, equipment failure, slope failure, or other change in site conditions which could impair the integrity of waste or leachate containment facilities or precipitation and drainage control structures.
REPORT DUE DATE: IMMEDIATE

9. The discharger shall maintain a copy of this Order at the site so as to be available at all times to site operating personnel.

10. This Board considers the property owner and site operator to have continuing responsibility for correcting any problems which arise in the future as a result of the waste discharged or related operations.

11. The discharger shall permit the Regional Board or its authorized representative, upon presentation of credentials:

    a. Immediate entry upon the premises on which wastes are located or in which any required records are kept.

    b. Access to copy any records required to be kept under the terms and conditions of this order.

    c. Inspection of any treatment equipment, monitoring equipment, or monitoring methods required by this order or by any other California State Agency.

    d. Sampling of any discharge or groundwater governed by this order.

12. The discharger shall prepare, implement and submit a Storm Water Pollution Prevention Plan in accordance with requirements specified in State Water Resources Control Board General Permit for Storm Water Discharges Associated with Industrial Activities (NPDES Permit No. CAS000001).

13. Copies of all correspondence, reports and documents pertaining to compliance with the Prohibitions, Specifications and Provisions of this Order, shall also be provided to the Environmental Health Services Division of Alameda County.

14. These requirements do not authorize commission of any act causing injury to the property of another or of the public; do not convey any property rights; do not remove

liability under federal, state or local laws; and do not authorize the discharge of wastes.

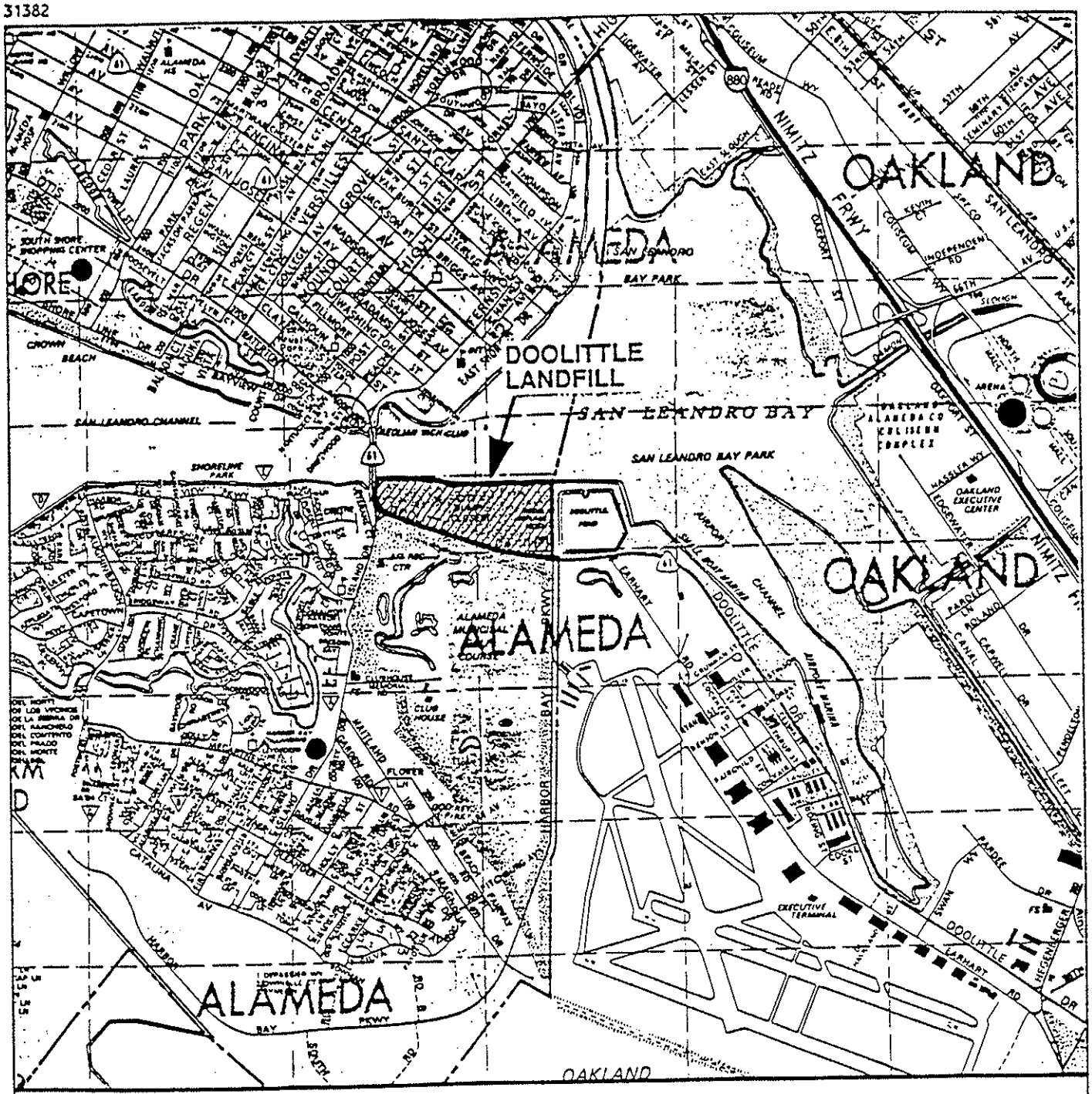
15. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office. To assume operation of this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. (Refer to Standard Provisions, referenced above). The request must contain the requesting entity's full legal name, the address and telephone number of the persons responsible for contact with the Board and statement. The statement shall comply with the signatory paragraph described in Standard Provisions and state that the new owner or operator assumes full responsibility for this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code.

16. This Order is subject to Board review and updating, as necessary, to comply with changing State and Federal laws, regulations, policies, or guidelines; changes in the Board's Basin Plan; or changes in the discharge characteristics.

I, Lawrence P. Kolb, Acting Executive Officer, do hereby certify that the foregoing is a full, complete, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on September 13, 1995.

Lawrence P. Kolb
Acting Executive Officer

Attachments: A. Site Location Map
B. Facility Map
C. Discharge Monitoring Program



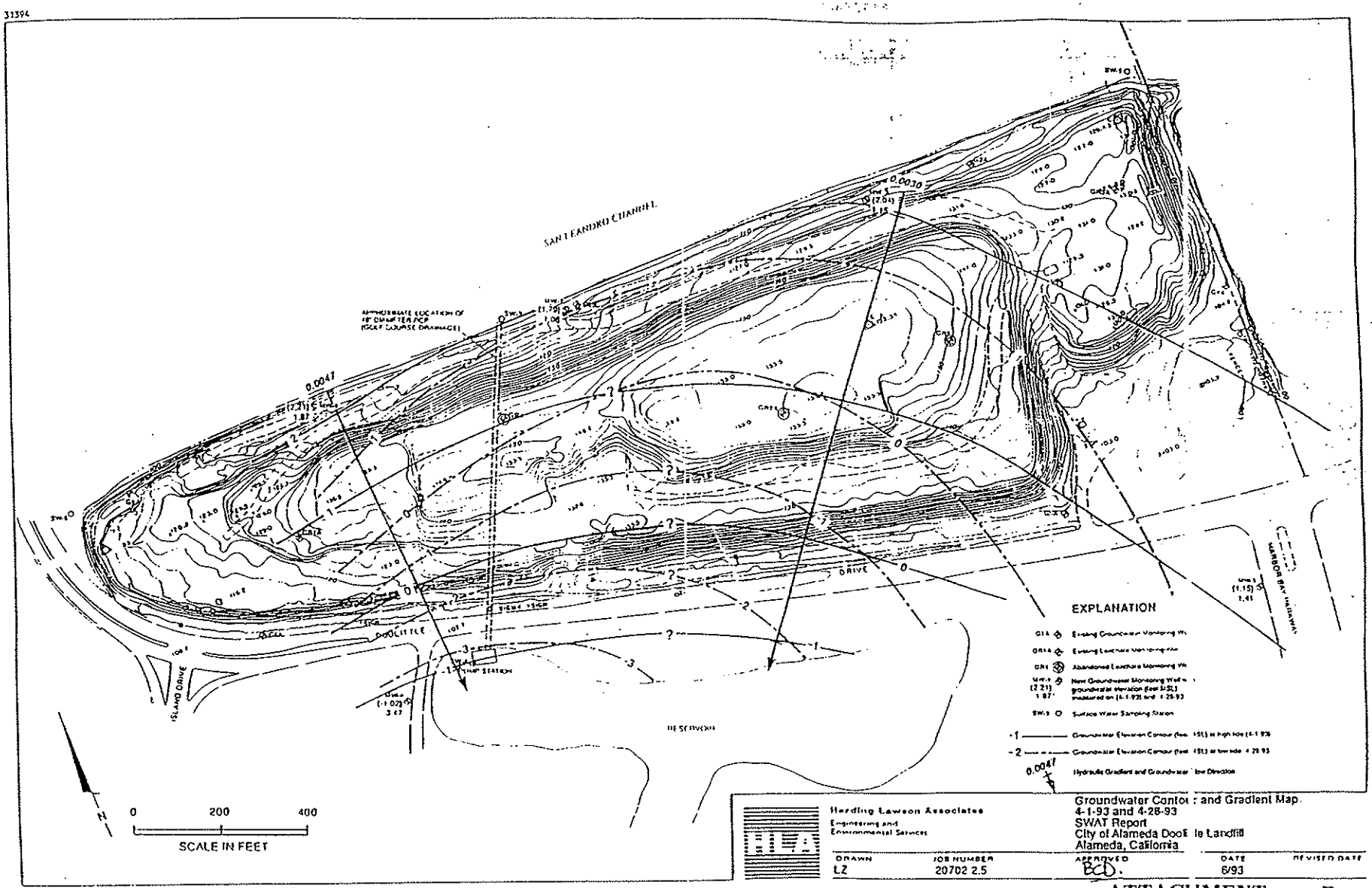
Base Map: Thomas Bros. 1988

Harding Lawson Associates
Engineering and Environmental Services

General Location Map ATTACHMENT A
SWAT Report
City of Alameda Doolittle Landfill
Alameda, California

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
NJB	20702 2.5	BCI	8/92	

31394



Harding Lawson Associates
Engineering and Environmental Services

Groundwater Contour and Gradient Map
4-1-93 and 4-28-93
SWAT Report
City of Alameda Doolittle Landfill
Alameda, California

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
LZ	20702 2.5	BCD.	6/93	

ATTACHMENT B

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

UPDATED
DISCHARGE MONITORING PROGRAM

FOR

CITY OF ALAMEDA.
ALAMEDA CITY DOOLITTLE LANDFILL
CLASS III SOLID WASTE DISPOSAL SITE
ALMEDA, ALAMEDA COUNTY

ORDER NO. 95-189

CONSISTS OF

PART A

AND

PART B

PART A

A. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No.73-16. This Discharge Monitoring Program is issued in accordance with Chapter 15, Article 5.

The principal purposes of a discharge monitoring program are: (1) to document compliance with waste discharge requirements and prohibitions established by the Board, (2) to facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of standards of performance, and toxicity standards, (4) to assist the discharger in complying with the requirements of Article 5, Chapter 15 as revised July 1, 1991.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the most recent version of EPA Standard Methods and in accordance with an approved sampling and analysis plan.

Water and waste analysis shall be performed by a laboratory approved for these analyses by the State of California. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Regional Board.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. DEFINITION OF TERMS

1. A grab sample is a discrete sample collected at any time.

2. Receiving waters refers to any surface water which actually or potentially receives surface or groundwaters which pass over, through, or under waste materials or contaminated soils. In this case the groundwater beneath and adjacent to the landfill areas, the surface runoff from the site, Spring Branch are considered receiving waters.

3. Standard observations refer to:

a. Receiving Waters

1) Floating and suspended materials of waste origin: presence or absence, source, and size of affected area.
2) Discoloration and turbidity: description of color, source, and size of affected area.
3) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
4) Evidence of beneficial use: presence of water associated wildlife.
5) Flow rate.
6) Weather conditions: wind direction and estimated velocity, total precipitation during the previous five days and on the day of observation.

b. Perimeter of the waste management unit.

1) Evidence of liquid leaving or entering the waste management unit, estimated size of affected area and flow rate. (Show affected area on map)
2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
3) Evidence of erosion and/or daylighted refuse.

c. The waste management unit.

1) Evidence of ponded water at any point on the waste management facility.
2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
3) Evidence of erosion and/or daylighted refuse.
4) Standard Analysis (SA) and measurements are listed on Table A (attached)

D. SAMPLING, ANALYSIS, AND OBSERVATIONS

The discharger is required to perform sampling, analyses, and observations in the following media:

1. Groundwater per Section 2550.7(b) and
2. Surface water per Section 2550.7(c)

and per the general requirements specified in Section 2550.7(e) of Article 5, Chapter 15. The Regional Board is requiring semi-annual sampling for this Discharge Monitoring Program.

E. RECORDS TO BE MAINTAINED

Written reports shall be maintained by the discharger or laboratory, and shall be retained for a minimum of five years. This period of retention shall be extended during the course

of any unresolved litigation regarding this discharge or when requested by the Board. Such records shall show the following for each sample:

1. Identity of sample and sample station number.

2. Date and time of sampling.

3. Date and time that analyses are started and completed, and name of the personnel performing the analyses.

4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used.

5. Calculation of results.

6. Results of analyses, and detection limits for each analysis.

F. REPORTS TO BE FILED WITH THE BOARD

1. Written detection monitoring reports shall be filed by the 15th day of the month following the report period. In addition an annual report shall be filed as indicated in F.3 below. The reports shall be comprised of the following:

a. Letter of Transmittal

A letter transmitting the essential points in each report should accompany each report. Such a letter shall include a discussion of any requirement violations found during the last report period, and actions taken or planned for correcting the violations. If the discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred in the last report period this shall be stated in the letter of transmittal. Monitoring reports and the letter transmitting the monitoring reports shall be signed by a principal executive officer at the level of vice president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct.

b. Each monitoring report shall include a compliance evaluation summary. The summary shall contain:

1) A graphic description of the velocity and direction of groundwater flow under/around the waste management unit, based upon the past and present water level elevations and pertinent visual observations.

2) The method and time of water level measurement, the type of pump used for purging, pump placement in the well; method of purging, pumping rate, equipment and methods used to monitor field pH, temperature, and conductivity during purging, calibration of the field equipment, results of the pH, temperature conductivity and turbidity testing, well recovery time, and method of disposing of the purge water.

3) Type of pump used, pump placement for sampling, a detailed description of the sampling procedure; number and description of equipment, field and travel blanks; number and description of duplicate samples; type of sample containers and preservatives used, the date and time of sampling, the name and qualifications of the person actually taking the samples, and any other observations.

c. A map or aerial photograph shall accompany each report showing observation and monitoring station locations.

d. Laboratory statements of results of analyses specified in Part B must be included in each report. The director of the laboratory whose name appears on the laboratory certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Board.

1) The methods of analyses and detection limits must be appropriate for the expected concentrations. Specific methods of analyses must be identified. If methods other than EPA approved methods or Standard Methods are used, the exact methodology must be submitted for review and approved by the Executive Officer prior to use.

2) In addition to the results of the analyses, laboratory quality assurance/quality control (QA/QC) information must be included in the monitoring report. The laboratory QA/QC information should include the method, equipment and analytical detection limits; the recovery rates; an explanation for any recovery rate that is less than 80%; the results of equipment and method blanks; the results of spiked and surrogate samples; the frequency of quality control analysis; and the name and qualifications of the person(s) performing the analyses.

e. An evaluation of the effectiveness of the leachate monitoring or control facilities, which includes an evaluation of leachate buildup within the disposal units, a summary of leachate volumes removed from the units, and a discussion of the leachate disposal methods utilized.

f. A summary and certification of completion of all standard observations for the waste management unit, the perimeter of the waste management unit, and the receiving waters.

2. CONTINGENCY REPORTING

a. A report shall be made by telephone of any seepage from the disposal area immediately after it is discovered. A written report shall be filed with the Board within five days thereafter. This report shall contain the following information:

1) a map showing the location(s) of discharge;
2) approximate flow rate;
3) nature of effects; i.e. all pertinent observations and analyses; and
4) corrective measures underway or proposed.

b. A report shall be made in writing to the Board within seven days of determining that a statistically significant difference occurred between a down gradient sample and California and Federal Drinking Water Standards (Maximum Contaminant Levels, MCLs). Notification shall indicate what MCLs has/have been exceeded. The discharger shall immediately resample at the compliance point where this difference has been found and re-analyze.

c. If resampling and analysis confirms the earlier finding of a statistically significant difference between monitoring results and MCLs the discharger must submit to the Board an amended Report of Waste Discharge as specified in Section 2550.8(k)(5) for establishment of an Evaluation Monitoring Program (EMP) meeting the requirements of Section 2550.9 of Chapter 15.

d. Within 180 days of determining statistically significant evidence of a release, submit to the regional board an engineering feasibility study for a Corrective Action Program (CAP) necessary to meet the requirements of Section 2550.10. At a minimum, the feasibility study shall contain a detailed description of the corrective action measures that could be taken to achieve background concentrations for all constituents of concern.

3. REPORTING

By January 31 of each year the discharger shall submit an annual report to the Board covering the previous calendar year. The annual report may incorporate the second semi-annual report of the previous year. The annual report shall contain:

a. Tabular and graphical summaries of the monitoring data obtained during the previous year; the report should be accompanied by a $5^1/_4$" computer data disk, MS-DOS ASCII format, tabulating the year's data.

b. A comprehensive discussion of the compliance record, and the corrective actions taken or planned which may be needed to bring the discharger into full compliance

with the waste discharge requirements.

c. A map showing the area, if any, in which filling has been completed during the previous calendar year.

d. A written summary of the groundwater analyses indicating any change in the quality of the groundwater.

e. An evaluation of the effectiveness of the leachate monitoring/ control facilities, which includes an evaluation of leachate buildup within the disposal units, a summary of leachate volumes removed from the units, and a discussion of the leachate disposal methods utilized.

4. WELL LOGS

A boring log and a monitoring well construction log shall be submitted for each new sampling well established for this monitoring program, as well as a report of inspection or certification that each well has been constructed in accordance with the construction standards of the Department of Water Resources. These shall be submitted within 30 days after well installation.

Part B

1. DESCRIPTION OF OBSERVATION STATIONS AND SCHEDULE OF OBSERVATIONS

B. ON-SITE OBSERVATIONS - Report Semi-annual

STATION	DESCRIPTION	OBSERVATIONS	FREQUENCY
V-1 thru V-`n'	Located on the waste disposal area as deli-neated by a 500 foot grid network.	Standard observations for the waste management unit.	Weekly
P-1 thru P-`n' (per-imeter)	Located at equidistant intervals not exceeding 1000 feet around the perimeter of the waste management unit.	Standard observations for the perimeter.	Weekly
L-1 thru L-'n'	At each point of discharge. Include a map indicating locations of discharge(s)	Standard test as outlined in on Table A. Grab sample taken from seeps with flow rates exceeding 5 gpm. Samples will be taken at a tide elevation less than +0.5 ft. above MLLW Alameda datum.	Semi-annual

C. GROUNDWATER and SURFACE WATER MONITORING - Report Semi-annual

Groundwater and surface water shall be monitored as outlined below and on Table A (Attached) and shown on Figure A (Attached). Control Chart Approach shall be used for Statistical Evaluation of data.

Monitoring Points:

Surface Water	SW2,SW3(downstream), SW1(upstream)
Bay mud	MW4,MW5,MW1, MW2,MW3
Debris zone(Leachate)	G1A,G2A,G3A,G4A,G6A GR1A,GR3A

E. FACILITIES MONITORING

The Discharger shall inspect all facilities to ensure proper and safe operation once per quarter and report semi-annually. The facilities to be monitored shall include, but not be limited to:

a. Perimeter diversion channels
b. Leachate Management facilities and secondary containment.

I, Lawrence P. Kolb, Acting Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedures set forth in this Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in this Board's Order No. 95-189.

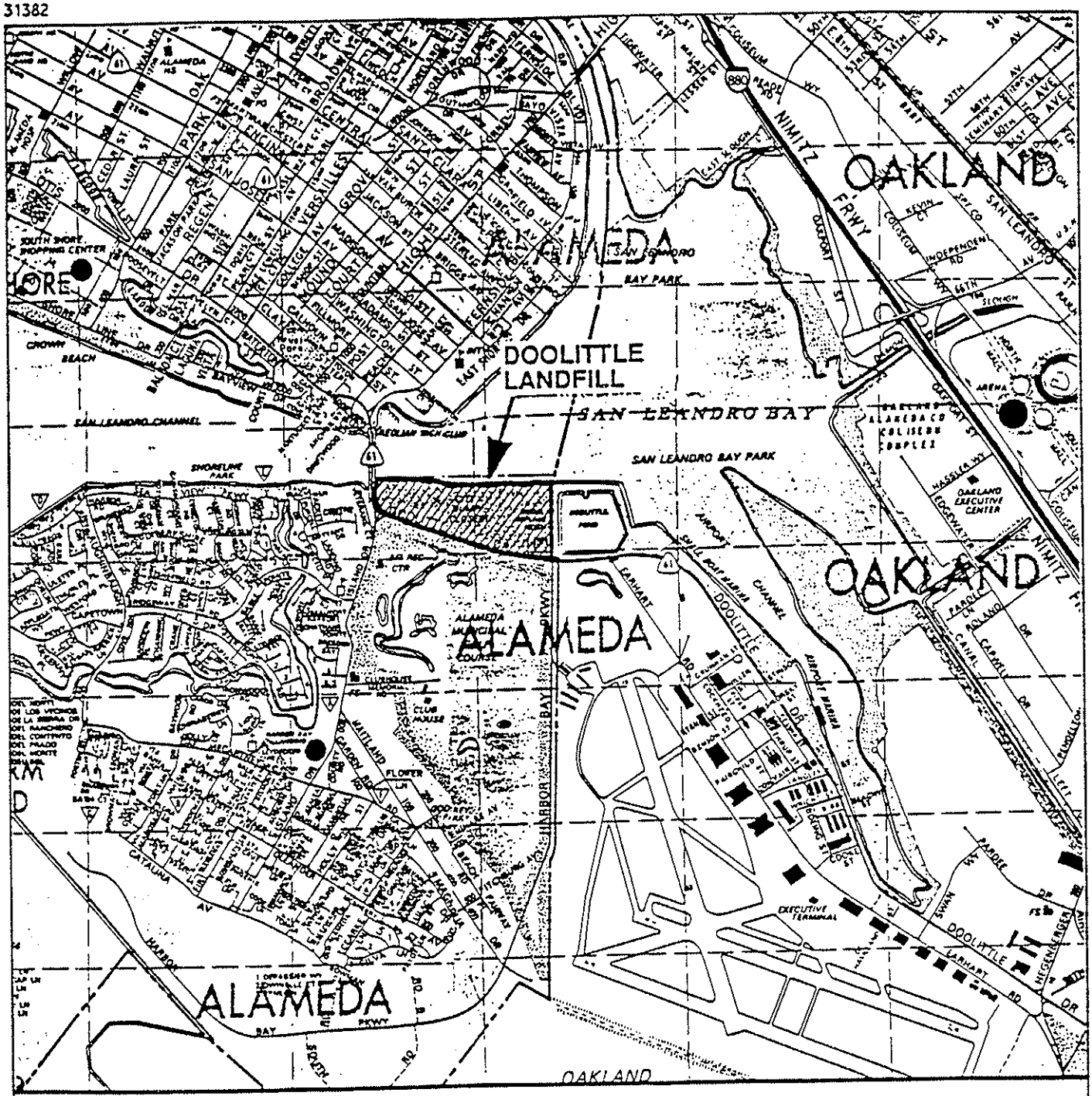
2. Is effective on the date shown below.

3. May be reviewed or modified at any time subsequent to the effective date, upon written notice from the Executive Officer.

Lawrence P. Kolb
Acting Executive Officer

Date Ordered: September 13, 1995
Attachment: Figure A - Site Map
Table A - Schedule for Sampling, Measurement, and Analysis

31382

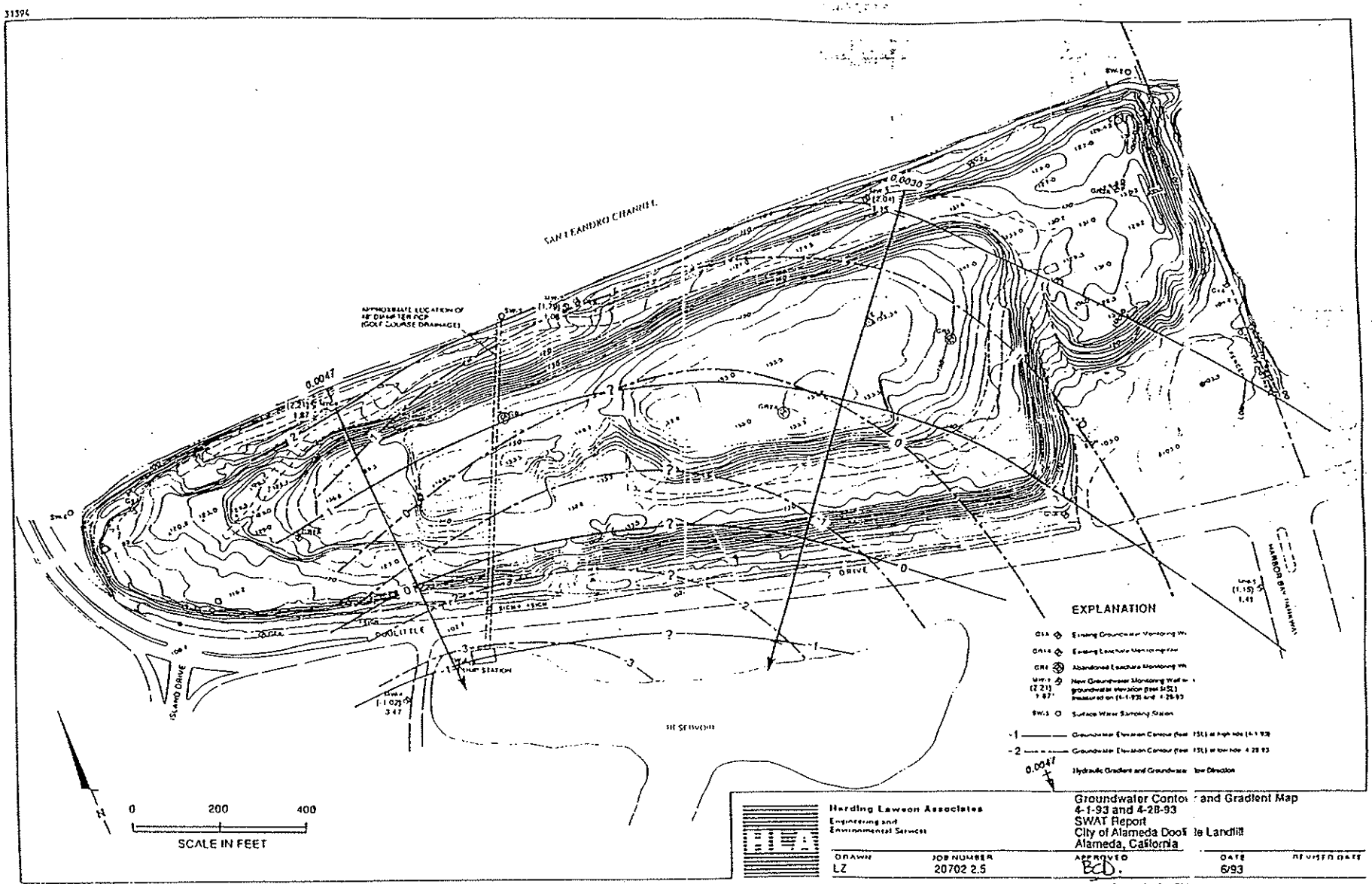


Base Map: Thomas Bros. 1988

Harding Lawson Associates
Engineering and
Environmental Services

General Location Map ATTACHMENT A
SWAT Report
City of Alameda Doolittle Landfill
Alameda, California

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
NJB	20702 2.5	BCT	8/92	



Harding Lawson Associates
Engineering and Environmental Services

Groundwater Contour and Gradient Map
4-1-93 and 4-28-93
SWAT Report
City of Alameda Doolittle Landfill
Alameda, California

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
LZ	20702 2.5	BCD.	6/93	

ATTACHMENT B

Table A - Discharge Monnitoring Plan, List of Analytical Parameters

Parameters	Method	Frequency	Reference
Water elevation level	Field	Semi-annual	1
Temperature	Field	Semi-annual	1
Leachate elevation level	Field	Semi-annual	1
pH	Field	Semi-annual	3
Turbidity	Field	Semi-annual	1
Nitrate nitrogen	9200	Semi-annual	3
Total organic carbon	415.1	Semi-annual	2
Benzene	8010/8020	Semi-annual	3
Chlorobenzene	8010/8020	Semi-annual	3
1,4 Dichlorobenzene	8010/8020	Semi-annual	3
Trichloroethylene	8010/8020	Semi-annual	3
Vinyl chloride	8010/8020	Semi-annual	3
Arsenic	7060	Semi-annual	3
Silver	6010	Semi-annual	3(b)
Cadmium	6010	Semi-annual	3
Mercury	7470	Semi-annual	3
Lead	6,010.00	Semi-annual	3.00
Selenium	7,740.00	Semi-annual	3.00

1. Not Applicable
2. Method for Chemical Analysis of Water and Wastes, EPA600/4/79/029, revised March 1983.
3. EPA SW-846

(a)groundwater samples only
(b)surface water samples only